

COPY OF PAPERS
ORIGINALLY FILED

#3



1

SEQUENCE LISTING

Sur
B1
<110> GOETTRADANIEL P.
SHOPES, ROBERT J.

<120> METHOD AND COMPOSITION FOR ALTERING A B CELL MEDIATED
PATHOLOGY

<130> 032077.0003

<140> 09/927,121

<141> 2001-08-10

<160> 93

<170> PatentIn Ver. 2.1

<210> 1

<211> 22

<212> PRT

<213> Homo sapiens

<400> 1

Met Leu Gly Pro Cys Met Leu Leu Leu Leu Leu Leu Gly Leu Arg
1 5 10 15

Leu Gln Leu Ser Leu Gly
20

<210> 2

<211> 66

<212> DNA

<213> Homo sapiens

<400> 2

atgggtggac cctgcattgt gctgctgctg ctgctgctag gcctgaggct acagctctcc 60
ctgggc 66

<210> 3

<211> 21

<212> PRT

<213> Apis mellifera

<400> 3

Met Lys Phe Leu Val Asn Val Ala Leu Val Phe Met Val Val Tyr Ile
1 5 10 15

Ser Tyr Ile Tyr Ala
20

<210> 4

<211> 63

<212> DNA

<213> Apis mellifera

```

<400> 4
atgaaattct tagtcaacgt tgcactagtt tttatggtcg tgtacatttc ttacatctat 60
gcg 63

<210> 5
<211> 7125
<212> DNA
<213> Autographa californica nucleopolyhedrovirus

<220>
<223> Expression vector

<400> 5
gcagttcggtt gacgccttcc tccgtgtggc cgaacacgac gaggcggtgg tcgatgacca 60
gcggcggtgcc gcacgcgacg cacaagtatc tgcacccga atgatcgctg ggcgaaggca 120
cgtcggcctc caagtggcaa tattggcaaa ttgcggaaaata tatacagttt ggttgggtgc 180
gcataatctat cgtggcggtt ggcacgttgc tccgaacgtt gatttgcattt gtttgcattt 240
ttaaatcatt ggcattttttt ggcattttttt gtttgcattt tttttttttttt 300
cgattaaatc ggcacatcga gtcaagttttt gtttgcattt tttttttttttt 360
cccgagtcggc ggcacggcgg tattttttaaca aactagccat tttttttttttt 420
aatgcacattt tttttttttttt tttttttttttt tttttttttttt 480
ttgtcgccatc tcaacacgac tttttttttttt tttttttttttt 540
gacgcacatcgtt ggcacatcgtt ggcacggcgg tttttttttttt 600
ttttttttttttt tttttttttttt tttttttttttt 660
ttttttttttttt tttttttttttt tttttttttttt 720
ttttttttttttt tttttttttttt tttttttttttt 780
ttttttttttttt tttttttttttt tttttttttttt 840
ttttttttttttt tttttttttttt tttttttttttt 900
ttttttttttttt tttttttttttt tttttttttttt 960
ttttttttttttt tttttttttttt tttttttttttt 1020
ttttttttttttt tttttttttttt tttttttttttt 1080
ttttttttttttt tttttttttttt tttttttttttt 1140
ttttttttttttt tttttttttttt tttttttttttt 1200
ttttttttttttt tttttttttttt tttttttttttt 1260
ttttttttttttt tttttttttttt tttttttttttt 1320
ttttttttttttt tttttttttttt tttttttttttt 1380
ttttttttttttt tttttttttttt tttttttttttt 1440
ttttttttttttt tttttttttttt tttttttttttt 1500
ttttttttttttt tttttttttttt tttttttttttt 1560
ttttttttttttt tttttttttttt tttttttttttt 1620
ttttttttttttt tttttttttttt tttttttttttt 1680
ttttttttttttt tttttttttttt tttttttttttt 1740
ttttttttttttt tttttttttttt tttttttttttt 1800
ttttttttttttt tttttttttttt tttttttttttt 1860
ttttttttttttt tttttttttttt tttttttttttt 1920
ttttttttttttt tttttttttttt tttttttttttt 1980
ttttttttttttt tttttttttttt tttttttttttt 2040
ttttttttttttt tttttttttttt tttttttttttt 2100
ttttttttttttt tttttttttttt tttttttttttt 2160
ttttttttttttt tttttttttttt tttttttttttt 2220
ttttttttttttt tttttttttttt tttttttttttt 2280
ttttttttttttt tttttttttttt tttttttttttt 2340
ttttttttttttt tttttttttttt tttttttttttt 2400
ttttttttttttt tttttttttttt tttttttttttt 2460
ttttttttttttt tttttttttttt tttttttttttt 2520

```

agactccaa cgcggttggc gtttattt cttgcgcag gatatcatgg agataattaa 2640
aatgataacc atctcgcaaa taaataaga tttactgtt ttgcgtacag tttgtataa 2700
aaaaaacta taaatattcc ggattattca taccgtccc ccatcgccg tgctagcgga 2760
tccgagctcg agatctcgag ctggtaccaat ggaattcgaa gttgtcggtt ggatggaaag 2820
aaaaagagtt ctacaggaa acttggaccc gttcatgga agacagcttc cccattgtta 2880
acgaccaaga agtgtatggat gtttccctt tggtcaacat gctcccaact agacccaacc 2940
gttgttacaa attccctggcc caacacgctc tgcggtcgca ccccgactat gtacccatg 3000
acgtgattag gatcgctcgag ctttcatggg tggcagcaa caacgagta cgcacatcgcc 3060
tggctaagaa gggccggcgc tgcccaataa tgaacattca cttcgatgtac accaactcg 3120
tcgaacagg catcgatcggt gtcatctggg agaacttca caagccccatc gtttacatcg 3180
gtaccgactc tgctgaagag gaggaaattt cccttgaatg tttccctgtt ttcaaaatgaa 3240
aggagttgc accagacgcga cctctgttca ctggccggc gtataaaac acgatacatt 3300
gttatttagt catttattaa gcgcttagatt ctgtcggtt ttgatttaca gacaattgtt 3360
gtacgtatcc taaaattca taaaatttat aatctttagg gttgtatgtt agagcgaaaa 3420
tcaaatgatt ttcaagcgtct ttatatctga atttaaatat taaaatcctca atagattgt 3480
aaaataggtt tcgatttagt tcaaacaagg gttgttttc cgaaccgatg gctggactat 3540
ctaattggatt ttcgctcaac gccacaaaac ttgccaaatc ttgttagcagc aatctagctt 3600
tgcgatatt cgtttgtt ttgtttgtt ataaagggtt gacgtcgatc aaaatattat 3660
gctttttgtt atttcttca tcactgtcgtagt gtttgcgtt tagctttttagt aggccgatta 3720
taaataaagg tagcttggac atatttaaca tcggccgtgt tagctttttagt aggccgatta 3780
tcgtcgctgt cccaaaccctc gtcgttagaa gttgttccg aagacgattt tgccatagcc 3840
acacgacgccc tatttattgt gtcggctaaac acgtccgca taaaattttt agttgagctt 3900
tttggaaattt tttctgattt cgggggtttt tgggggggtt tcaatctaaat tgccggat 3960
ttaatttcag acaacacggtt agaaaggcat ggtgcaggcg gttgttaacat ttcaacggc 4020
aaatctacta atggccggg tgggtggactt gatgataat ctaccatcg tggaggccgca 4080
ggccgggttgc gggggggagg cggaggccgca ggtggggcg gttgttgcaga cggccgttta 4140
ggctcaaatg tctctttagg caacacagtc ggcacctaa ctattgtact gtttccggc 4200
ggcgttttgc gtttgcaccgg tctgagacga gtgegattttt ttcgttttca aatagcttcc 4260
aacaatttgcgtt gtctgtcgatc taaaggtgca gccgggtttagt gttccgtcgatc cattgggtgga 4320
gccccggcga attcagacat cgatgggtt ggtgggttgc gaggccgtgg aatgtttaggc 4380
acgggagaag gttgtggcg ggttgcgcgca ggtataattt gtttgcgtt agtttgcgt 4440
cgcacgatgt tgggcaccgg cgcaggccgca gttgtgcacaa acacggaaagg tgcgtctgtt 4500
cgaggccgatc cttgggggtgg tggcaatttca atattataat tggaaatacaa atcgtaaaaa 4560
tctgtataa gcatgttataat ttcgtatcg ttacccgtgc cgatatttttca acccgctca 4620
atgttaagcaat ttgttattgtt aagagattgt ctcaagctcc gacccgttca aacaaggctt 4680
ttcatttttta ctacagcatt gtagtggcga gacacattcg tgcgtcgac tcgagttctca 4740
tagtgtcacc taaaatcgat gttgtatgata cataagggtt ttttttttgcgtt gtagcccggt 4800
tctaacgaca atatgtccat atggtgcact ctcagttcaat ttcgtctgtt tgccgtatag 4860
ttaagccgc cccgacacccc gccaacacccc gctgacggcg cttgtacggc tttgtctgtt 4920
ccggcattccg cttacagaca agctgtgacc gtttccggg gttgtatgt tcaagagggtt 4980
tcaccgtcat caccggaaacgc cgcgagacga aagggtctcg tgatacgctt atttttatag 5040
gttaatgtca tgataataat gtttcttagt acgtcagggtt gcaacttttgc gggaaatgtt 5100
cgccggaaaccctt ctatttgcgtt atttttctaa atacattcaat atatgtatcc gtcgtatgaga 5160
caataaccctt gataaaatgtt tcaataat taaaaggaa agagttatgatg tattcaacat 5220
ttccgtgtcg cccttattcc ctttttttgcgtt gcatatttgcgtt ttccgtttt tgctcaccca 5280
gaaacgctgg tggaaatggaa agatgttgcgtt gatcgttgcgtt gttgtacatc 5340
gaactggatc tcaacacgccc taagatccctt gagagtttgc gccccgaaaga acgtttccca 5400
atgtatgatc ctttttttgcgtt ttttttgcgtt ggcgcggat ttttttgcgtt tgacccggg 5460
caagagccaaatc tgggtcgccg ctttttgcgtt gcatatttgcgtt ttccgtttt tgacccggg 5520
gtcacacaaaatc agatcttccat ggttgcgtt acgttgcgtt aatttttgcgtt tgctgcata 5580
accatgtatc ttttttgcgtt gcatatttgcgtt ttccgtttt tgacccggg 5640
ctaaccgtt ttttttgcgtt gatcgttgcgtt gatcgttgcgtt ttccgtttt tgacccggg 5700
gagctgtatc aaggccatccaa acacgacgccc gttgtacggc ttttttgcgtt ttccgtttt 5760
acaacgttgc gcaaaactattt aacttgcgtt ttttttgcgtt ttccgtttt tgacccggg 5820
atagacttgc tggaggccgaa taaagttgcgtt gttgtacggc ttttttgcgtt ttccgtttt 5880
ggctgggttta ttgttgcgtt gttgtacggc ttttttgcgtt ttccgtttt tgacccggg 5940
gcactggggc cagatgttgcgtt gttgtacggc ttttttgcgtt ttccgtttt tgacccggg 6000
gcaactatgg atgaacgaaa tagacagatc gttgtacggc ttttttgcgtt ttccgtttt tgacccggg 6060

tggtaactgt	cagaccaagt	ttactctat	atactttaga	ttgattttaa	acttcattt	6120
taatttaaaa	ggatcttagt	gaagatcctt	tttgataatc	tcatgaccaa	aatcccttaa	6180
cgtgagttt	cgttccactg	agcgtcagac	cccgtagaaa	agatcaaagg	atcttcttga	6240
gatcctttt	ttctgcgcgt	aatctgctgc	ttgcaaaacaa	aaaaaccacc	gctaccagcg	6300
gtggtttgtt	tgccggatca	agagctacca	actcttttc	cgaaggtaac	tggcttcagc	6360
agagcgcaga	taccaaatac	tgtccttcta	gtgtagccgt	agttaggcca	ccacttcaag	6420
aactctgtag	caccgcctac	atacctcgct	ctgctaatcc	tgttaccagt	ggctgctgcc	6480
agtggcgata	agtctgtct	taccgggtt	gactcaagac	gatagttacc	ggataaggcg	6540
cagcggctcg	gctgaacggg	gggttcgtgc	acacagccca	gctggagcg	aacgacctac	6600
accgaactga	gatacctaca	gcgtgagcat	tgagaaaagcg	ccacgcttcc	cgaagggaga	6660
aaggcggaca	ggtattccgg	aagcggccgg	gtcggaaacac	gagagccac	gaggaggact	6720
ccagggggaa	acgcctggta	tctttatagt	cctgtccgggt	ttcgcacact	ctgactttag	6780
cgtcgatatt	tgtatgtct	gtcaggggggg	cgagacat	ggaaaaacgc	cagcaacgcg	6840
gcctttttac	ggttctggc	cttttgcgtt	ccttttgcct	acatgttctt	tcctgcgtt	6900
tccctgtatt	ctgtggataa	ccgtattacc	gcctttgagt	gagctgatac	cgtcgccgc	6960
agccgaacga	ccgagcgcag	cgagtcagtg	agcgagaaag	cggaagagcg	cccaatacgc	7020
aaaccgcctc	tccccggcg	ttggccgatt	cattaatgca	ggttaacctg	gcttatcgaa	7080
attaatacga	ctcaactatag	ggagacccggc	agatcgatct	gtcga		7125

<210> 6

<211> 8420

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: pTRABacHuLCHC1

DNA sequence

<400> 6

gagtaaattt tttgttgtca taaaatata tgcctttt aatgggggt atagtaccgc 1740
 tgcgcatagt ttttctgtaa ttatacAACAG tgctatttc tgtagttct tcggagtg 1800
 ttgcTTTaaT tattaaattt atataatcaa tgaatttggg atcgtcggtt ttgtacaata 1860
 tggccggc atagtaCGca gcttcttcta gttcaattac accattttt agcagcac 1920
 gattaacata acttccaaa atgttgtacg aaccgttaaa caaaaacagt tcacccct 1980
 tttctatact attgtctgcg agcagttgtt tgttgttaaa aataacagcc attgtaatga 2040
 gacgcacaaa ctaatatcac aaactggaaa tgcctatcaa tatatagttg ctgatatctc 2100
 cccagcatgc ctgcattgtt ctcccaatc ctccccctt ctgtcctgcc ccacccacc 2160
 ccccagaata gaatgcaccc tactcagaca atgcgtgc atttccat tttatttagga 2220
 aaggacagtgg ggagtggcctt ctccagggtt caaggaaggc acgggggagg ggcaaaaca 2280
 agatggctgg caactagaag gcacagtcgatggtgcgatcgatcgatctc 2340
 tatttacccgg gagacaggaa gaggcttc tgctgttagt ggttgtcag agcctcatgc 2400
 atcacggagc atgagaagac gttccctgc tgccacctgc tcttgtccac ggtgagctt 2460
 ctgttagagga agaaggagcc gtcggagtc agcacggag gctgggtctt gtagttgtt 2520
 tccggctgcc cattgtctc ccactccac gcgatgtgc tggatagaa gccttgacc 2580
 aggcagggtca ggctgacctg gttctggc taccagtta acttgacctc agggcttc 2640
 acctgtgggtt ctggggctg cccttggct tggtggatgg ttttctcgat gggggctgg 2700
 agggcttgg tggagaccc tcacttgtac cccttgcattcagccatc ctggtgca 2760
 acggtgagga cgctgaccac acggtaCGtgc tctgttact gctctcccg cggcttgc 2820
 ttggcattat gcacccctc acggctccac gtcgttgc taccagtta acttgacctc agggcttc 2880
 tggctcacgt ccaccaccac gcatgtgacc tcaggggtcc gggagatcat gagggtgtcc 2940
 ttgggttttggggggaaagag gaagactgac ggtccccca gggatccagg tgctgggcac 3000
 ggtgggcattt gttgatgg tgcacaatgtt ttggctcaat ctttcttgc caccttgg 3060
 ttgtctgggtt gttgatccac gttcgatgtt taggtctggg tgcccaagat gttggagg 3120
 acggctccacca cgctgtcgag ggtagtagt cctgaggact gttagacagc cgggaagg 3180
 tgcacggccg tggtcaggcc gcttgatgtc cacgacaccg tcaccgggtc ggggaagtag 3240
 tccttgcacca ggcagccca gggcgtgtg ccccccagg tgcttggta ggaggggtgc 3300
 agggggaaaga ccgatggcc cactagtgc acgttgacta agaatttcat gcggccgcgt 3360
 acgattgtaa ataaaatgtt attacatgtt tagtattttt attaatatac aatgattt 3420
 ataataattt ttatttaact ataaatataattt gtgttggtt gaattaaagg tcccgcatc 3480
 ctcaaatgc taatatcata gttccctgc ttgttaagtga tgcgtatttc tgaatcttt 3540
 taaaatagca cacaggactc caacgcgtt ggcgtttt tttcttgc gaggatatac 3600
 tggagataat taaaatgata accatctcgc aaataaataa gtatTTTact gtttctgtaa 3660
 cagtttggta ataaaaaaac ctataaaatattt tccggatattt tcataccgtc ccaccatcg 3720
 gcgtgctagc ggatccatgg tggaccctg catgtctgc ctgcgtctc tgctaggcc 3780
 caccaggat cttcatctt ccgcattctg atgacgtt gaaatctgaa actgcctctg 3840
 ttgtgtgcctt gtcataaaat ttctatccca gagaggccaa agtacagtgg aagggtggata 3900
 acggccctcca atcggttaac tcccaggaga gtgtcacaga gcaggacagc aaggacagca 3960
 cctacagccct cagcagcacc ctgacgtga gcaaaagcaga ctacgagaaa cacaaggct 4020
 acgcctgcgaa agtcacccat cagggcgtga gctcgccgt cacaagagc ttcaacagg 4080
 gagagtgttta atagaagctt gtcgttggat gggaaaggaaa agagttctac agggaaactt 4140
 ggacccgctt catggaaagac agttccca ttgttaacga ccaagaagtg atggatgtt 4200
 tccttgggtt caacatgtcg cccactagac ccaaccgtt ttacaaattt ctggcccaac 4260
 acgctctgcg ttcgcacccc gactatgtac ctcatgtcg gattaggatc gtcgagcc 4320
 catgggtggg cagcaacaac gaggatccca tcagccttgc taagaaggc ggcggctgc 4380
 caataatgaa cttcaactt gaggatccca actcggtcg acatgttcatc gatgtgtca 4440
 tctggggagaa cttctacaag cccatcgat acatcggtac cgactctgtt gaagaggagg 4500
 aaatttctccat tgaagttcc ctgggttca aagtaaaggat gtttgcacca gacgcac 4560
 tggtcactgg tccggcgat taaaacacgat tacattgttta ttgtacatt tattaagcgc 4620
 tagattctgtt gctgttgta ttatcagaca attgttgtac gtatTTTact aattcattaa 4680
 atttataattt tttaggggtt tatgttagat cggaaaatcaa atgatTTTca gctgtttt 4740
 atctgaattt aaatattttt tccctcaatag atttgtaaa taggtttcgat ttagtttcaa 4800
 acaagggttg ttttccgaa ccgatggctg gactatctaa tggatTTTcg ctcaacgc 4860
 caaaaacttgc caaatcttgc agcagcaatc tagcttgc gatattcgat tgggtttt 4920
 ttgttaataa aggttcgacg tcgttcaaaa tattatgcgc ttttgcattt cttcatcac 4980
 tgcgtttagt gtacaattga ctgcacgtaa acacgttaaa taaagcttagc ttggacat 5040
 ttaacatcggtt gctgtttagc ttatTTTcgat ccattatcgat cgtcgccca accctcg 5100
 ttagaaggat cttccgaaga cgattttgc atagccacac gacgccttatt aattgtgtcg 5160

gctaacacgt ccgcgatcaa attttagtgg gagcttttg gaattatttc tgattgcggg 5220
 cgtttttggg cgggttcaa tctactgtg cccgatttta attcagacaa cacgttagaa 5280
 agcgatggtg caggcgtgg taacattca gacggcaat ctactaatgg cggcgggtgg 5340
 ggagctgatg ataaatctac catcggtgg a ggcgcaggcg gggctggcgg cggaggcgg 5400
 ggcggagggt gtggcgtga tgcagacggc ggtttaggtc caaatgtctc tttaggcaac 5460
 acagtcggca cctcaactat tgtaactggc tcgggcggc tttttgggtt gaccggctg 5520
 agacgagtgc gattttttgc gtttctaata gtttccaaca attttgtct gtcgtctaaa 5580
 ggtgcagcgg gttgagggtc cgtcggcatt ggtggagcgg ggcgaattc agacatcgat 5640
 ggtgggtggt gttggggaggc cgttggaaatg ttaggcacgg gagaagggtgg tggcggcgg 5700
 ggcggcggta taatttggc tgggttagt tgttcgccca cgattgtggg caccggcgg 5760
 ggcggcggctg gtcgcacaac ggaagggtcg tgcgtcgag gcagcgctt ggggtggcgg 5820
 aattcaataat tataatttggc atacaatcg taaaatctg ctataagcat tgtaatttgc 5880
 ctatcgatca cctgtccat atttaacaac cgctcaatgt aagcaattgt attgtaaaga 5940
 gattgtctca agctccgcac ggcgataaca agcctttca ttttactac agcattgttag 6000
 tggcgagaca ctgcgtgtc gtcgactcgat gttctatagt gtcacctaata tcgtatgtgt 6060
 atgatacata aggttatgtt ttaatttgc tgcgttca acgacaatat gtcgttca 6120
 tgcactctca gtacaatctg ctctgtatgcc gcatagttaa gccagccccg acacccgcga 6180
 acacccgcgtc acgcgcgcgtc acgggcttgc ctgtcccgat catccgttca cagacaagct 6240
 gtgaccgtct cccggagctg catgtgtcgat aggttttccat cgtcatcacc gaaacgcgcg 6300
 agaggaaagg gcctcggtat acgccttattt ttatagggtt atgtcatgat aataatgggt 6360
 tcttagacgtc cagggtggcactt tttcggggaaat ttcataatcattt gtttttattt 6420
 ttctaaatcattt aacccctgata aatgcttcaa 6480
 taatatttggc aaaggaagag tatgatgtt caacatttcc tggtcgccct tattccctt 6540
 tttcgccat tttcgccattt ttttttgc tttccatgat aacccagaaa cgctggtaa 6600
 gctgaagatc agttgggtgc acgagtgggt tacatcgaaatc tggatctcaa cagcggtaa 6660
 atccttgaga gtttccccc cgaagaacgt tttccatgat tgaggactt taaagttctg 6720
 ctatgtggcg cggatttattt ccttatttgc gccggcaag agcaactcg gtcggccata 6780
 cactattctc agaatgactt ggtttagtac tcaccagtca cagaaaagca tcttacggat 6840
 ggcgtacacg taagagaatt atgcgtgtc ggcataacca tgagtgataa cactgcggcc 6900
 aacttacttc tgacaacgt cggaggaccg aaggagctaa cccgttttttgc acacaatcg 6960
 ggggatcatg taactcgcc tgcgttgg gaaacggcgc tgaatgaacg cataccaaac 7020
 gacgcgtgtc acaccacgt ggcgtgtacat gtcgtccatcatttacttactt 7080
 ggcgtacactt ttacttgc ttcccgccaa atggcaacaa cgttgcgcac actattaaatc 7140
 gttcaggac cacttcgtc ctccgcctt ccggctggct ggttatttgc tgataaatct 7200
 ggagccgggtg agcgtgggtc tgcgtgtatc attgcgtac tggggccaga tggtaagccc 7260
 tcccgatcg tagttatctc caccgtgggg agtcaggcaatcattttatc acgaaataga 7320
 cagatcgctg agatagggtgc ctcaactgtt aagcatttgc taaatgtcaga ccaagtttac 7380
 tcataatatac ttttagatgtat taaaacttc atttttatc taaaaggatc taggtgaaga 7440
 tccttttgc taatctcatg accaaaatcc ttttccatgat gtttccgttc cactgagcgt 7500
 cagacccgtt agaaaatgc aaaggatctt ctttccatgat ctttccatgc cgcgtatct 7560
 gctgttgc aacaaaaaaa ccaccgttac cagcggtgtt ttgttgcgc gatcaagagc 7620
 taccactt tttccgaaat gtaactggct tcaggcggcgc acgacatccca aataactgtcc 7680
 ttcttagtgc ggcgtatgtt ggcaccact tcaagaactc tgcgtccatc cctacatacc 7740
 tgcgtctgtc aatctgttgc ccagtggctg ctgcgttgc tgcgttgc tgcgttgc 7800
 gtttggactt aagacgtatg ttaccggata aggcgcacgc gtcggcgtga acgggggggtt 7860
 cgtgcacaca gcccacgtt gaggcgtac ctttccatgc ctttccatgc actggatatac ttttccatgc 7920
 agcatttgc aagcgtccacg ctttccatgc ggagaaaaggc ggacaggatc cccgtaaagcg 7980
 gcagggtcg aacaggagag cgcacgtggg agcttccagg gggaaacgc tggatcttt 8040
 atagtcctgt cgggttgc caccctgtac ttgagcgtc ttttttgc tgcgttgc 8100
 gggggccggag cctatggaaa aacggccacgc acgcggccctt ttttccatgc ttttccatgc 8160
 gctggccctt tgctcacatg ttctttccatg ctttccatgc ttttccatgc ttttccatgc 8220
 ttaccgcctt tgatgtggatc gataccgtc ggcgcaggcg aacgaccgag cgcagcgagt 8280
 cagtggatc ggaagccggaa gaggcgtccaa tacgcaaaacc gccttccccc ggcgttggc 8340
 cgatttccatc atgcgttgc accttgc ttttccatgc ttttccatgc ttttccatgc 8400
 cccggcagatc gatctgtcgatc 8420

<210> 7
<211> 8415
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: pTRABacHuLCHC1
DNA sequence

<400> 7
gcagttcggtt gacgccttcc tccgtgtggc cgaacacgtc gagcgggtgg tcgatgacca 60
gcggcggtgcc gcacgcgcacg cacaagtatc tgtacaccga atgatcgctg ggcgaaggca 120
cgtcggcctc caagtggcaa tattggcaaa ttgcggaaaata tatacagttt ggttgggttgc 180
gcatatctat cgtggcggtt ggcgtatgtc tccgaacgtt gatttgcgtt caagccgaaa 240
ttttatcatt gcgatttagt ggtttttttttt atccatggccgt 300
cgattaaatc ggcgaatcga gtcaggatgtt cttttttttttt atccatggccgt 360
cccgagtcggca ggcagcgcgcg tattttttttt aacttgcgtt cttttttttttt atccatggccgt 420
aatgcacatc tttttttttt tttttttttt atccatggccgt 480
ttttttttttt tttttttttt tttttttttt atccatggccgt 540
gacgcacatg gacgtatctg tgacgcgtt ccggccacgg ctttgggtt aataatgttt 600
ttttttttttt tttttttttt tttttttttt atccatggccgt 660
acaaaattttt cttttttttt tttttttttt atccatggccgt 720
tcgaatcagg accgctgggtt cttttttttt tttttttttt atccatggccgt 780
tggagtccgc tcattttttttt tttttttttt atccatggccgt 840
gtttttttttt tttttttttt tttttttttt atccatggccgt 900
ttttttttttt tttttttttt tttttttttt atccatggccgt 960
gaaattttttt tttttttttt tttttttttt atccatggccgt 1020
gtttttttttt tttttttttt tttttttttt atccatggccgt 1080
atttttttttt tttttttttt tttttttttt atccatggccgt 1140
aagggtttt tttttttttt tttttttttt atccatggccgt 1200
cgatgtttt tttttttttt tttttttttt atccatggccgt 1260
gtttttttttt tttttttttt tttttttttt atccatggccgt 1320
aaaactgtcg acaagctctg tccgtttgtt ggcaactgca aggggtctca tttttttttt atccatggccgt 1380
aattttttttt tttttttttt tttttttttt atccatggccgt 1440
caaacgcac aagaacattt gtgttattt tttttttttt atccatggccgt 1500
ttttttttttt tttttttttt tttttttttt atccatggccgt 1560
tattttttttt tttttttttt tttttttttt atccatggccgt 1620
ttttttttttt tttttttttt tttttttttt atccatggccgt 1680
gagttttttt tttttttttt tttttttttt atccatggccgt 1740
ttttttttttt tttttttttt tttttttttt atccatggccgt 1800
ttttttttttt tttttttttt tttttttttt atccatggccgt 1860
ttttttttttt tttttttttt tttttttttt atccatggccgt 1920
gattttttttt tttttttttt tttttttttt atccatggccgt 1980
ttttttttttt tttttttttt tttttttttt atccatggccgt 2040
gacgcacaaa cttttttttt tttttttttt atccatggccgt 2100
cccgatgc tttttttttt tttttttttt atccatggccgt 2160
ccccagaata gaatgacacc tttttttttt tttttttttt atccatggccgt 2220
aaggacagtg ggagtggcac tttttttttt tttttttttt atccatggccgt 2280
agatggctgg caactagaag tttttttttt tttttttttt atccatggccgt 2340
tattttttttt tttttttttt tttttttttt atccatggccgt 2400
gagttttttt tttttttttt tttttttttt atccatggccgt 2460
atccacggacg atgagaagac tttttttttt tttttttttt atccatggccgt 2520
ctgttagagga agaaggagcc tttttttttt tttttttttt atccatggccgt 2580
tccggctggcc cattttttttt tttttttttt atccatggccgt 2640
aggcagggtca gggtttttttt tttttttttt atccatggccgt 2700
acctgtgggtt tttttttttt tttttttttt atccatggccgt 2760
agggctttgt tttttttttt tttttttttt atccatggccgt 2820
acgggtggggca cgctgaccac tttttttttt tttttttttt atccatggccgt 2880
ttttttttttt tttttttttt tttttttttt atccatggccgt 2940

tggctcacgt ccaccaccac gcatgtgacc tcaggggtcc gggagatcat gagggtgtcc 2940
 ttgggttttg gggggaaagag gaagactgac ggtcccccac ggagtcagg tgctggcac 3000
 ggtggcattg tggatgtttt gtcacaagat ttggctcaa ctttctgtc caccttggtg 3060
 ttgctggct tggatgtac gttcagatg taggtctggg tgcccaagct gctggaggc 3120
 acggtcacca cgctgtgag ggagtagatg cctgaggact gtaggacagc cgggaagggtg 3180
 tgcacgcgc tggtcaggc gcctgagttc cacgacaccg tcaccggc 3240
 tccttgacca ggcagccag ggccgtgtg ccccccagg tgctcttggg ggagggtgcc 3300
 agggggaaaga ccgatggcc cactagtgc acgttgacta agaaattcat gcccggcgt 3360
 acgattgtaa ataaaatgtt attacagta tagtattttt attaataatac aatgattttg 3420
 ataataattt ttatataact ataataatatt gtgttgggtt gaattaaagg tcccgatc 3480
 ctcaaatgc taatatcata gtccttctt tggtaatgtg tgctgttgc tgaatctttg 3540
 taaaatagca cacaggactc caacgcgtt ggcgtttt tttcttgctc gaggatatac 3600
 tggagataat taaaatgtt accatctgc aaataataa gtatttact gtttctgtaa 3660
 cagtttgc taaaataaaac ctataataat tccggattat tcataaccgtc ccaccatcg 3720
 gctgttagc ggtatccatgg tgggaccctg catgctgtg ctgctgtgc tgcttaggc 3780
 caccaggatg cactctgtt cccgccttctt ctgaggagct tcaagccaa aaggccacac 3840
 tggtgtgtct cataagtgc ttcttccgg gacccgtgact gatggcctgg aaggcagata 3900
 gcagccccgt caaggcggga gtggagacca ccacaccctc caaacaaagc aacaacaagt 3960
 acggcccgag cagctacatg agcctgacgc ctgagcgtg gaagtcccac aaaagctaca 4020
 gctgccaggta caccatgaa gggagcaccg tggagaagac agtggccctt acagaatgtt 4080
 catagtaaaa gcttgcgtt ggtatggaaag gaaaagagtt ctacaggaa acttggacc 4140
 gcttcatggg agacagctt cccattgtt acgaccaaga agttaggtt gttttccctt 4200
 ttgtcaacat gcttccact agacccaaacc gtttttacca attcttggcc caacacgtc 4260
 tgcgttgcgta ccccgactat gtaactcatg acgtgattttag gatgtcgag ctttcatggg 4320
 tggcagcaaa caacgagtac cccatcgac tggtaagaa gggccggc 4380
 tgaacccatca ctctgttacc accaactcg tgcacagtt catcgatcg tgcatttggg 4440
 agaacttca caagccatc gtttacatcg gtaccgactc tgctgaagag gaggaaattt 4500
 tccttgaatg ttccctgggt ttcggatgaa aggttttgc accagacgca cctctgttca 4560
 ctggccggc gtataaaac acgatacatt gtttttagtta catttattaa ggccttagatt 4620
 ctgtgcgtt ttgatttaca gacaattgtt gtacgtttt taataattca taaaatttt 4680
 aatctttagg gtggatgtt agagcgaaa tcaaattgtt ttccgcgtt ttatatctga 4740
 atttaataat taaatctca atagattttt gaaatagtt tcgatttagt tcaaacaagg 4800
 gtttttttc cgaaccatg gctggactat ctaatggatt ttccgcac gccacaaaac 4860
 ttgccaaatc ttgttagcgc aatcttagtt tgctgatattt cgttgggtt ttgttttgc 4920
 ataaaagggttc gacgtcgatc aaaatattat gcgcttttgc attttttca tcactgtcg 4980
 tagtgtacaa ttgactcgac gtaaaacacgt taaaataaaagc tagcttggac atatttaaca 5040
 tcgggcgtgt tagctttttagccatcgatc tgcgtgtcg ccccaaccctc gtcgttagaa 5100
 gttgcctccg aagacgattt tgccatagcc acacgaccc tattttttgt gtcggctaac 5160
 acgtcccgca tcaatattgtt agttgagctt ttggaaatta ttcttgcattt cggggcggtt 5220
 tggccgggtt tcaatctaaatc tggcccgat ttttattccatg acaacacgtt agaaagcgat 5280
 ggtgcaggcg gtggtaacat ttccagacggc aaatctacta atggccggg tggtggagct 5340
 gatgataaat ctaccatcg tggaggcgca ggcggggctg gcccgggggg cggggccgg 5400
 ggtggccggc gtgtgcaga cggccgttta ggctcaatg tcttttttgc caacacatgc 5460
 ggcacccatca ctatttgcattt gtttccggc gccgttttgc gtttgcaccgg tctgagacga 5520
 gtgcgatttt ttccgttttca aatagcttcc aacaatttttgc tgcgttgc taaaggtgc 5580
 gcccgggtttagt gttccgtcg catttttttttgc gcccggccgca attcagacat cgtgggtgt 5640
 ggtggccggc gggccgttgc aatgtttaggc acggggagaag gtggccggg cggccggcc 5700
 ggtataattt gttccgtttt agtttgcattt cgcacccatgg tggccaccgg cgcaggcc 5760
 gctggctgca caacggaaagg tgcgttgc tggccggcgtt ctttttttttgc tggcaattca 5820
 attattataat tggatataaa atcgatggatc tgcgttgcatttgc gatttttttttgc ttcgcataatcg 5880
 ttaccgtgc cgatattttca aacccgtca atgtaaatc ttgttatttttgc aagagattttt 5940
 ctcaagctcc gacacccatcc ttcatttttca ctacacccat gtagtggc 6000
 gacacttccg tgcgttgcac tgcgttgc tgcgttgc ttttttttttgc ttttttttttgc 6060
 cataaggatca tggatataattt gtagccgcgt tgcgttgc ttttttttttgc ttttttttttgc 6120
 ctcagttacaa tgcgttgc tgcgttgc ttttttttttgc ttttttttttgc ttttttttttgc 6180
 gctgacccgcg cctgacccgc ttgttgc ttttttttttgc ttttttttttgc ttttttttttgc 6240
 gtttttttttgc gtttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc 6300
 aaggccctcg tgatacgcc ttttttttttgc ttttttttttgc ttttttttttgc ttttttttttgc 6360

acgtcagggt gcactttcg gggaaatgtg cgcgaaaccc ctatttgttt atttttctaa 6420
 atacattcaa atatgtatcc gctcatgaga caataacccct gataaatgct tcaataaatat 6480
 tgaaaaagga agagtatgag tattcaacat ttccgtgtcg cccttattcc cttttttgcg 6540
 gcattttgc ttcctgttt tgcacccca gaaacgctgg tgaagataaa agatgctgaa 6600
 gatcagttgg gtgcacgagt gggttacatc gaactggatc tcaacagcgg taagatcctt 6660
 gagagtttc gccccgaaga acgtttcca atgatgagca cttttaaagt tctgctatgt 6720
 ggcgcggtat tatccctat tgacgcggg caagagcaac tcggcgccg catacactat 6780
 tctcagaatg acttgggtga gtactcacca gtcacagaaa agcatcttac gatggcatg 6840
 acagtaagag aattatcgag tgcgtccatc accatgagtg ataacactgc ggcacactta 6900
 cttctgacaa cgatcgagg accgaaggag ctaaccgtt ttttcacaa catggggat 6960
 catgttaactc gccttgcgtc ttggaaaccg gagctgaatg aagccatacc aaacgacgag 7020
 cgtgacacca cgatgcctgt agcaatggca acaacgttc gcaaaactatt aactggcga 7080
 ctacttactc tagttcccg gcaacaatta atagactgga tggaggcga taaagttgca 7140
 ggaccacttc tgcgtccggc cttccggct ggctggtta ttgctgataa atctggagcc 7200
 ggtgagcgtg ggtctcgccg tattcattgca gcactgggc cagatggtaa gccctcccg 7260
 atcgttagtta tctacacgac ggggagttag gcaactatgg atgaacgaaa tagacagatc 7320
 gctgagatag gtgcctcaat gattaagcat tggtaactgt cagaccaagt ttactcatat 7380
 atactttaga ttgatttaaa acttcattt taatttaaaa ggatcttaggt gaagatcctt 7440
 tttgataatc tcatgaccaa aatcccttaa cgtgagttt cgttccactg agcgtcagac 7500
 cccgtagaaa agatcaagg atcttcttgc gatcctttt ttctgcgtc aatctgctgc 7560
 ttgcaaaacaaa aaaaaccacc gtcaccatcg gtggtttgc tgccgatca agagctacca 7620
 actcttttc cgaaggtaac tggcttcagc agagcgcaga taccaaatac tgccttcta 7680
 gtgttagccgt agttaggcca ccacttcaag aactctgttag caccgcctac atacctcgct 7740
 ctgctaattc tggtaaccatg ggctgctgcc agtggcgata agtctgtct taccgggtt 7800
 gactcaagac gatagttacc ggataaggcg cagcggtccg gctgaacggg gggttcgtgc 7860
 acacagccca gcttggagcg aacgacctac accgaactga gataacctaca gggtgagcat 7920
 tgagaaagcg ccacgcttcc cgaagggaga aaggcggaca ggtatccggta aagcggcagg 7980
 gtcggaaacag gagagcgcac gagggagctt ccagggggaa acgcctggta tctttatagt 8040
 cctgtcggtt ttcgccccct ctgactttag cgtcgattt tgcgtatc gtcagggggg 8100
 cggagccctat ggaaaaaacgc cagcaacgcg gccttttac ggttctggc cttttgtctgg 8160
 cctttgtct acatgttctt tccgtcgta tccctgtatt ctgtggataa ccttattacc 8220
 gcctttgagt gagctgatac cgtcgccgc agccgaacga ccgagcgcag cgagtcaatg 8280
 agcgaggaag cggaaagagcg cccaaatcgc aaaccgcctc tccccggcg ttggccgatt 8340
 cattaatgca ggttacatcg gcttacatcg attaatacgat ctcactatag ggagaccggc 8400
 agatcgatct gtoga 8415

<210> 8
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 8
 cagatcacta gttttatgg tcgtgtacat ttcttacatc tatgctg

46

<210> 9
 <211> 34
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 9
ctgagtaggc ctgaggctac agctctccct gggc 34

<210> 10
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 10
ggaagtagtc cttgaccagg cag 23

<210> 11
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 11
gggaaaaggg ttggggccga tgcac 25

<210> 12
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 12
gatgaagaca cttgggtgcag ccacag 26

<210> 13
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 13
ggaacagagt gacactgggt gcagccttgg gctg 34

<210> 14

<400> 14
000

```

<210> 15
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 15
actagtgc aa cgttgactaa gaatttcatg cggccgc 37

<210> 16
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 16
gcggccgcat gaaattctta gtcaacgttg cactagt 37

<210> 17
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 17
gcggatccat ggtgggaccc tgcattgtgc tgctgctgct gctgctaggc ctggattcc 60

<210> 18
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 18
ggaattccag gccttagcagc agcagcagca gcagcatgca gggtcccacc atggatccgc 60

<210> 19
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 19
tgtgactagt atgtatcggc ccatcggtct tccccct 37

```

<210> 20
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 20
tttctagact attatttacc cggagacagg gagag

35

<210> 21
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 21
ctaggccat gtatcacaa gtgtcttcat cttccggca tct

43

<210> 22
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 22
cccaagctc tattaacact ctcctctgtt gaagct

36

<210> 23

<400> 23
000

<210> 24

<400> 24
000

<210> 25
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 25
aaatgataac catctcg

18

<210> 26
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 26
tttactgttt tcgtaacagt tttg

24

<210> 27
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 27
ttggaggggcg ttatccacct tc

22

<210> 28
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 28
ctgtaaatca acaacgcaca g

21

<210> 29
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 29
caacaacgca cagaatctag

20

<210> 30
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 30
gggaccttta attcaaccca acac

24

<210> 31
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 31
aaacgcgttg gagtcttgtg tgc

23

<210> 32
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 32
ggaagtatgc cttgaccagg cag

23

<210> 33
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 33
ctgagttcca cgacaccgtc ac

22

<210> 34
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 34
tagagtccctg aggactgttag gac

23

<210> 35
<211> 23
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 35

ggtcgttaac aatgggaaag ctg

23

<210> 36

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 36

tttactttt tcgtaacagt tttg

24

<210> 37

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 37

ggtcgttaac aatgggaaag ctg

23

<210> 38

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 38

tcaccatgga ctggacacctgg ag

22

<210> 39

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 39

accatggaca tactttgttc cacgc

25

<210> 40
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 40
accatggaca cacttgctc cacgc

25

<210> 41
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 41
accatggagt ttgggctgag ctg

23

<210> 42
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 42
accatggaac tggggctccg ctg

23

<210> 43
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 43
aagaacatga aacacctgtg gttcttc

27

<210> 44
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 44
atcatgggt caaccgccat cct

23

<210> 45
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 45
acaatgtctg tctccttcct catc 24

<210> 46
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 46
acatgagggt ccccgctcag c 21

<210> 47
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 47
tcagctccctg gggctgctaa tg 22

<210> 48
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 48
cttcctccctg ctactctggc tc 22

<210> 49
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 49
gcagacccag gtcttcattt ctc 23

<210> 50
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 50
ccaggttcac ctcctcagct tc 22

<210> 51
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 51
ggtttctgct gctctgggtt cc 22

<210> 52
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 52
tcactgyrca gggtcctggg c 21

<210> 53
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 53
actcaggrrca caggrtcctg g 21

<210> 54
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 54
ttgcttactg cacaggatcc gtg

23

<210> 55
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 55
cttgctcact ttacaggttc tgtg

24

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 56
ctcactcttt gcataagggtc tgtg

24

<210> 57
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 57
tcaacctcta cacaggctct attg

24

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 58
ctcactctct gcacagkctc tgwg

24

<210> 59
<211> 24
<212> DNA

<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Primer

<400> 59
cattttctcc acaggtctct gtgc 24

<210> 60
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Primer

<400> 60
cctccactgs acagggctc tc 22

<210> 61
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Primer

<400> 61
ctctcactgc acaggttccc tc 22

<210> 62
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Primer

<400> 62
cgctcactgc acaggttctt gg 22

<210> 63
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Primer

<400> 63
cttgctgccc agggtccaat tc 22

<210> 64
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 64
tgcttatgga tcaggaggatgg attc

24

<210> 65
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 65
cagtctccctc acagggtcccc tc

22

<210> 66
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 66
tcactcactc tgcagtgta gtg

23

<210> 67
<211> 70
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 67
cagatcaacta gtttttatgg tcgtgtacat ttcttacatc tatgcggaga tgaaattgggt 60
ggagtctggg 70

<210> 68
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 68
ctgagtaggc ctgaggctac agctctccct gggcgaagtt gtgttgactc agtctcc 57

<210> 69
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 69
ctgagttcca cgacaccgtc ac 22

<210> 70
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 70
ggaaattctc acaggagacg agg 23

<210> 71
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 71
ttggagggcg ttatccacct tc 22

<210> 72
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 72
gaagtcaatt atgagacaca ccag 24

<210> 73
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 73
ggaagtatgc cttgaccagg cag 23

<210> 74
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 74
gggaaaagggg ttggggcccgta tgcac 25

<210> 75
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 75
gggaaaagggg ttggggcccgta tgcac 25

<210> 76
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 76
gaaacagagt gacactgggt gcagccttgg gctg 34

<210> 77
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 77
tgcccgatcgcc aggagggtatt tcattatgac tgtctcccttg ctattatgaa cattctgttag 60
ggggccca 66

<210> 78
<211> 36

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 78
gtcagcccaa ggctgcaccc agtgtcaactc tggttcc 36

<210> 79
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 79
cgttatcaagg ttttactatg aacattctgt agggggccac 39

<210> 80
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 80
cctttgataaa cacccaa 16

<210> 81
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 81
gtgttatcaa agg 13

<210> 82
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 82
ctagtttgat aaggggcc 17

```

<210> 83
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 83
cttataaaa 9

<210> 84
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 84
cctttgataa caccaa 16

<210> 85

<400> 85
000

<210> 86
<211> 371
<212> DNA
<213> Homo sapiens

<400> 86
gacatgttgt tgggtggaaatc gggggggaggc ctgggtccagc cggggggagtc cctgagactc 60
tcctgtgtgg cctctagatt cacctttaga acgttttggga tgacacctgggt ccggccaaactt 120
ccagggaaagg ggctggagtg ggtggccaat ataaatcaag atggcagtca gacgtatcat 180
gcggactctg taaagggcccg atttaccatc tccagagaca acggcaggaa ctcccttattt 240
ttacaaaatga caagtctgag agtgcggac acggctatat attactgtgc gactaatgaa 300
acgtccagtg gcctggactg ctggggccaa ggaaccctgg tcactgtctc ctcagcttcc 360
accaaggggcc c 371

<210> 87
<211> 349
<212> DNA
<213> Homo sapiens

<400> 87
gaaatcgttgt tgacacagtc tccagccacc ctgtcttcgt ctccaggaga cagagtgcgc 60
ctctcctgca gggccagtca gagtgtaaga agttacttaa gttggatca acagaaggct 120
ggccagggttc ccaggtctt catccataat gcatccagta gggccactgg catccccc 180
agattcagtg gcagtgggtc tgggacagac ttcaactctca ccatcagtcg cctagagact 240
gaagatgctg cagtttatta ctgtcagcaa ctttatttctt ggccctccgat attattttc 300
ggccctggga ccaaagtgaa tatcacacgaa actgtggctg caccaagtg 349

```

```

<210> 88
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 88
gaagtcaatt atgagacaca ccag 24

<210> 89
<211> 9182
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Plasmid pTRABac/9F12
DNA sequence

<400> 89
gcagttcggt gacgccttcc tccgtgtggc cgaacacgtc gagcgggtgg tcgatgacca 60
ggggcgtgcc gcacgcgacg cacaagtatc tgcacccga atgatcgctg ggcgaaggca 120
cgtcggcctc caagtggcaa tattggcaaa ttgcggaaaata tatacagttg gttgtttgc 180
gcataatctat cgtggcggtt ggcacgtacg tccgaacgtt gatttgcacg caagccgaaa 240
ttaaatcatt gcgattatgt cgattaaaac gttgtacatc ctcgttttta atcatgcccgt 300
cgattaaatc ggcacatcga gtcaagtgtat caaagtgtgg aataatgttt tctttgttatt 360
cccgagtcggc ggcacgtcg tatttttaca aactagccat cttgttaagtt agtttcattt 420
aatgcacattt tatccaaataa tatattatgt atgcacgtc aagaatttac aatgcgccccg 480
ttgtcgcatc tcaacacgac tatgtatagag atcaaaataaa ggcacgtt aatagcttgc 540
gacgcacacgt gcacgtatcg tgacacgtt cccgcacggat ctttgcatttgc 600
tacgaaggcga tgacatgacc cccgtatgtca aacgcacgtt ccccaaaaaga actgcgcact 660
acaaaatttac cgagtatgtc ggtacgtt aacattttaa gccatccat cgaccgttag 720
tcgaatcagg accgtcggtt cgagaagccg cgaagtatgg cgaatgcacgttataacgtt 780
tggagtcggc tcatttgcgtt gtcatgtttt gacaagaaag ctacatattt aattgtatccc 840
gatgatgtttt ttgataaaattt gacccttactt ccatacacgg tatttttacaa tggcggtttt 900
ttgggtcaaaa ttccggactt gcgattgtac atgctgtttt cggctccggcc cactattttat 960
gaaattttttt attccaaattt taaaaaaacgc agcaagagaa acattttgtat gaaagaatgc 1020
gtagaaggaa agaaaaatgt cgtcgacatg ctgaacaaca agattaatat gcctccgtt 1080
ataaaaaaaaaa tattttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1140
aagaggtttt tactaaacttgc ttacatttgc aacgtgtttt cgtgtgcacaa gtgtgaaaac 1200
cgatgtttttt tcaaggctctt gacgcatttca tacaaccacg actccaaatgt tttttttttt 1260
gtcatgcattt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1320
aaaactgtcg acaagctcttgc tccgtttttttt ggcacgttca agggtttttt tttttttttt 1380
aattttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1440
caaaacgcacaa aaaaacattt gtgtttttttt tttttttttt tttttttttt tttttttttt 1500
tgaggtaataa tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1560
tattttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1620
ttttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1680
gagttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1740
tgcgcataat tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1800
ttgtttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1860
tggttgcggc atagttacgca gttttttttt tttttttttt tttttttttt tttttttttt 1920
gattaacata actttttttt tttttttttt tttttttttt tttttttttt tttttttttt 1980
ttttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 2040
gacgcacaaa cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 2100

```


accgatggct ggactatcta atggattttc gctcaacgcc acaaaacttg ccaaatcttg 5640
 tagcagcaat ctagcttgcgatattcgat ttgtgttttgcataatggat aagggtcgac 5700
 gtcgtcaaa atattatgcg cttttgtatt tctttcatca ctgtcgtagt tttacaatttg 5760
 actcgacgtaa acacacgttaa ataaaggatcg cttggacata ttaacatcg ggcgtgttag 5820
 ctttatttagg ccgattatcg tcgtcgccccc aaccctcgatc gttagaaggat gttccgaaag 5880
 acgattttgc catagccaca cgacgcctat taattgtgc ggctaaacacg tccgcgatca 5940
 aattttagt tgagctttt ggaattttt ctgtatggcg gctttttgg gccccgttca 6000
 atctaactgt gcccgtttaa aattcagaca acacgttgc aaggatggt gcaaggccgtg 6060
 gtaacatttc agacggcaaa tctactaatg gcccgggtgg tggagctgtat gataaatcta 6120
 ccatcgggtgg agggcggaggc ggggctggcg gcccggggg aggccggagggt ggtggccgtg 6180
 atgcagacggc cggttaggc tcaaataatgtct ctttagggca cacagtcggc acctcaacta 6240
 ttgtactgtt ttcggggcgcc gttttgtt tgaccggctc gagacgagtg cgatttttt 6300
 cgtttctaat agcttccaac aatttgtgtc tgcgtctaa aggtgcagcg ggttgaggtt 6360
 ccgtcgccat tggtgagcg ggcggcaatt cagacatcgat tggtggtgg ggtgggtgg 6420
 ggcgtggat gttaggcact ggagaagggt gttggccggg tgccggcggtt ataatttgg 6480
 ctggtttagt ttgttcgccc acgattgtgg gcacccggc aggccggct ggcgtgcacaa 6540
 cggaaaggctcg tctgcttcga ggcagcgctt ggggtgggg caattcaata ttataattgg 6600
 aatacaaattc gtaaaaatct gctataaagca ttgtatattc gctatcgttt acctgtccga 6660
 tatttaacaa cgcgtcaatg taagcaattt tattgtaaag agatgtctc aagctccgca 6720
 cggccgataac aaggctttt atttacta cagctatgtatc gttggcgagac attcgtctgt 6780
 cgtcgactcg agttctatag tgcacccatc atcgatgtatc tgcactctc agtacaatct 6840
 attaattgtt gccgcgttca aacgacaata tgcacccatc tgcactctc agtacaatct 6900
 gctctgtatc cgcgtatgtt aacccagcccc gacacccggc aacacccggct gacgcgcctt 6960
 gacggggcttgc tctgctcccg gcatccgctt acagacaacg tgcggccgtc tccggggagct 7020
 gcatgtgtca gaggtttca ccgtcatcac cgaaacgcgc gagaggaaag ggcctcgta 7080
 tacgcctatt ttataggtt aatgtcatga taataatgtt ttcttagacg tcagggtggca 7140
 ctttcggggg aaatgtgcgc ggaacccctta ttgtttatt ttctaaata cattcaaaata 7200
 tgcgtatccgtt catgagacaa taaccctgtat aaatgtctca ataatattga aaaaggaaga 7260
 gatgtatgtt tcaacatttc cgtgtcgccc ttattccctt ttgtcgccca ttgtcgccctt 7320
 ctgttttgc tcaccccgaa acgctgggtga aagtaaaaga tgctgaatg cagttgggtg 7380
 cacgagtggg ttatcatcgaa ctggatctca acagcggtaa gatccttgatc agtttcggcc 7440
 cccaaagaacg ttatccatgt atgagactt tttaaatgtt gctatgtggc gccgttattat 7500
 cccgtattgtt ggcggccaa gagcaactcg tgcggccat acactatttc cagaatgact 7560
 tgggtttagtgc ttcaccaggc acagaaaagc atcttacggg tggcatgaca gtaagagaat 7620
 tgcgtatgtc tgcctataacc atgagtgata acactgcggc caacttactt ctgacaacga 7680
 tcggaggacc gaaggagctt acccgctttt tgcacaacat gggggatcat gtaactcgcc 7740
 ttgatcgatc tggacccggg ctgaatgttccatccaaa cgcacgacgt gacaccacaga 7800
 tgcctgtatc aatggcaaca acgttgcgc aactattaaatc tggcgaacta cttactctag 7860
 cttcccgccca acaattaaata gactggatgg aggcggatata agttgcagga ccacttctgc 7920
 gtcggccctt tccggctggc tgggttatttgc tgcataatc tggagccggg gaggcgtgggt 7980
 ctcgcgttat cattgcagca ctggggccag atggtaagcc ctcccgatc ttagttatct 8040
 acacgacggg gagtcaggca actatggatg aacgaaatag acagatcgat gagataggtg 8100
 cctcaactgtat taacgatgg taactgtcag accaagttt ctcataatata ctttagatgt 8160
 atttaaaaatc tcatttttaa tttaaaaaggatc ttaggtgaa gatccctttt gataatctca 8220
 tgacccaaatcccttaacatgt gatgtttcgat tccactgtgc gtcgacccccc gtagaaaaga 8280
 tcaaaggatc ttctttagat ctttttttgc tgcgtatctt ctgtcgcttgc caaacaaaaaa 8340
 aaccaccgtt accagcggtt gtttgggtgc cggatcaaga gctaccaact cttttccga 8400
 aggttaactgg cttcagcaga ggcagatata cttactgtt cttcttagt tagccgtatg 8460
 tagggccacca cttcaagaac tctgttagcact cgcctacata cttcgctctg ctaatctgt 8520
 taccagtggc tgctgcccagt ggcgataatgt cgtgttttac cgggttggac tcaagacgt 8580
 agttaccggtaa taaggcgcag cggtcgggtt gaaacggggggg ttgtgtcaca cagcccgact 8640
 tggagcgac gacccatcacc gaaactggatg acctacacgc tgagcattga gaaagcgcca 8700
 cgttcccgaa agggagaaag gcccggacggat atccggtaag cggcagggtc ggaacaggag 8760
 agcgcacgag ggagcttcca gggggaaacg cctggatctt ttatgtctt gtcgggtttc 8820
 gccacccctg acttggatgtt cgtatccatgt gatgtcgcc agggggggccg agccatgtga 8880
 aaaacggccag caacgcggcc ttttacggt tccctggccctt ttgtgtcaca 8940
 tggatcttcc tgcgtatcc cttgtatgtt gggataaccg tattaccggc tttgagttag 9000
 ctgataccgc tgcggccagc cgaacgcggc agcgcacgc gtcgtatgtt gggaaagcg 9060

aagagcgtcc aatacgcaaa ccgcctctcc ccgcgcgttg gcccattcat taatgcaggt 9120
taacctggct tatcgaaatt aatacgactc actataggga gaccggcaga tcgatctgtc 9180
ga 9182

<210> 90
<211> 8435
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: pTRABacHuLCHC1
DNA sequence

<400> 90	gcgatgtcggtt gacgccttcc tccgtgtggc cgaacacgac gaggcggtgg tcgatgacca 60
gcggcggtgcc gcacgcgacg cacaagtatc tgtacaccga atgatcgctg ggcgaaggca 120	
cgtccggcctc caagtggcaa tattggcaaa ttgcggaaaata tatacagttt ggttgggttgc 180	
gcatatctat cgtggcggtt ggcacgtacg tccgaaacgtt gatggcatg caagccgaaa 240	
ttaaatcatt gcgatttagt cgattaaaac gttgtacatc ctcgcgttta atcatggcgt 300	
cgattaaatc ggcgaatcga gtcagggtat caaagtgtgg aataatgtt tctttgtatt 360	
cccgagtcggc ggcagcgcg tattttaca aactggccat cttgtttaatg agtttcat 420	
aatgcaactt tatccaataa tatattatgt atgcacgtc aagaattaa aatgcggcccg 480	
ttgtcgcatc tcaacacgac tatgatagag atcaaaataa ggcgaatcga aatagcttgc 540	
gacgcacatgc gcacatctg tgacatgacc cccgtatgtg caacgatcac gcccggaaaaga actgcccact 600	
tacgaagcga tgacatgacc ggtgacgtt aaactattaa gccatccaaat cgaccgttag 660	
acaaaattac cgagatgtc cgagaagccg cgaagtatgg cgaatgcattt gtataacgtg 720	
tcgaatcagg accgctgggt gtcatgttta gacaagaaaag ctacatattt aattgtatccc 780	
tggagtcgc tcattagac gaccctaaat ccatacacgg tattctacaa tggcggggtt 840	
gatgattttt ttgataaatt gcatgttac atgctttttt cggctccgc cactattaaat 900	
ttggtcaaaa ttccggact gcatgttac atgctttttt cggctccgc cactattaaat 960	
gaaattaaaa attccaattt taaaaaaacgc agcaagagaa acattttgtat gaaagaatgc 1020	
gtagaaggaa agaaaaatgt cgtcgacatg ctgaaacaaca agattaatat gcctccgtt 1080	
ataaaaaaaa tattgaacga ttgaaagaa aacaatgtac cgcgcggcgg tatgtacagg 1140	
aagaggttta tactaaactg ttacattgca aacgtgggtt cgtgtggccaa gtgtggaaaac 1200	
cgatgtttaa tcaaggctct gacgcatttc tacaaccacg acttccaaatg tgggggtgaa 1260	
gtcatgtatc tttaatcaa atcccaagat gtgttataac caccacaaatgc cccaaaaatgc 1320	
aaaactgtcg acaagctcg tccgtttgtt ggcacatgc agggctctaa tcctattttgt 1380	
aattattggaa taataaaaca attataatgt ctaaaatgtt ttttttattaa cgatcacaaac 1440	
caaaacgaaac aagaacattt gtatattatctataatttga aaacgcgttag ttataatcgc 1500	
tgaggtaata tttaaaatca ttttcaatgtt atttcacacgtt aatttgcac aatataattt 1560	
tattttcaca taaactagac gccttgcgtt cttcttctt gtattccttc tctttttcat 1620	
ttttctccct ataaaaattt acatagttat tatgtatcc atatatgtat ctatcgata 1680	
gagtaaattt ttgttgcgtt taaatatata tgcgtttttt aatgggggtgt atagtaccgc 1740	
tgcgcatagt ttttctgtttt tttacaacag tgctttttc tggtagttct tcggagtg 1800	
ttgcttaat tattaaattt atataatcaa tgaatttggg atcgtcggtt ttgtacaata 1860	
tggtggccgc atagtgacga gcttcttcta gttcaattac accatttttt agcagacccg 1920	
gattaacata actttccaaa atgttgcgtt aaccgttaaa caaaaacagt tcacccctt 1980	
tttctataact atgtctcgca agcagttgtt tgcgtttaaa aataacacgc attgtatga 2040	
gacgcacaaa ctaatatcac aaactggaaa tgcgtatcaa tataatgtt ctgatatactc 2100	
cccagcatgc ctgttattgtt cttcccaatc ctcccccttgc ctgtccgtcc ccacccccc 2160	
ccccagaata gaatgacacc tactcgacata atgcgtatgc atttccat tttttagga 2220	
aaggacatgtt ggagtggccac ctccagggtt caaggaaaggc acggggggagg ggcacaaac 2280	
agatggctgg caactagaag gacacgtcga ggctgtatcg cgagctctag tctagactat 2340	
tattttcccg gagacaggga gaggctttc tgctgttagt ggttgcgttgc agcctcatgc 2400	
atcacggagc atgagaagac gttccccctgc tgccacctgc tcttgcac ggtgagctt 2460	
ctgttagagga agaaggagcc gtcggagttc agcacggag ggcgtggctt gtatgttgc 2520	
tccggctgccc cattgtcttc ccactccacg gcgatgtcgc tggggatagaa gcctttgacc 2580	

<210> 91
<211> 8429
<212> DNA
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: pTRABacHuLCHC1
DNA sequence

```
<400> 91
gcagttcggtt gacgccttcc tccgtgtggc cgaacacgtc gagcgggtgg tcgatgacca 60
gcggcggtgcc gcacgcgacg cacaagtatac tgtacaccga atgatcgtcg ggcgaaggca 120
cgatcggtccca caagtggcaa tattggccaa ttgcggaaaata tatacagttg gttgtttgc 180
gcataatcatt cgtggcggtt ggcgtatcgtc tccgaaacgtt gattttgcgtg caagccgaaa 240
ttaaatcattt gcgattatgt cgattaaaac gttgtacatc ctcgcgtttt atcatggccgt 300
cgattaaatc ggcgaatcgtc gtcaagtgtt caaagtgtgg aataatgttt tctttgtatt 360
```

cccgagtc aa ggcgagcg tattttaca aactagcc catgttaagtt agtttcat 420
aatgcaactt tatccaataa tatattatgt atcgacgtc aagaattaac aatgcggcc 480
ttgtcgcatc tcaacacgac tatgatagag atcaaaataa ggcgcaatta aatagcttgc 540
gacgcacacgt gcacgatctg tgcacgctt ccggcacgag ctttattgt aataagttt 600
tacgaagcga tgacatgacc cccgtatgtca caacgatcac gcccggaaactgcccact 660
acaaaattac cgagatgtc ggtgacgtt aaactattaa gccatccaat cgaccgttag 720
tcgaatcagg accgctgggtcgagaagccg cgaagtatgg cgaatgcacatgtataa 780
tggagtccgc tcatttagagc gtcattgtt gacaagaag ctacatattt aattgatccc 840
gatgattttt ttgataaattt gaccctaact ccatacacgg tattttacaa tgggggggtt 900
tttgtcaaaa ttcccgact gcgatgttac atgctgttta cggctccggccacttataat 960
gaaattaaaa attccaattt taaaaacgc acgaagagaa acatttgat gaaagaatgc 1020
gtagaagaaa agaaaaatgt cgtcagatc ctgacaaca aagttatgcgc 1080
ataaaaaaaaa tatttacgaa ttgaaaagaa aacaatgtac cggcgccggcgtatgtacagg 1140
aagaggttta tactaaactg ttacattgca aacgtgttt cgtgtgccaatgtgaaac 1200
cgatgtttaa tcaaggctct gacgcatttc tacaaccacg actccaatgt tgggggtgaa 1260
gtcatgcac ttttataatcaa atcccaagat gtgtataaac caccacactg ccaaaaaatg 1320
aaaactgtcg acaagctctg tccgttgcgt ggcaactgca agggctcaatcttattt 1380
aattattgaa taataaaaca attataaaatg ctaaattttt tttttatcaa cgatacaaac 1440
caaacgcac aagaacattt gtatgttattt ctataattga aacgcgttag ttataatgc 1500
tgaggtataa tttaaaatca ttttcaatgtt attcacagtt aatttgcac aatataattt 1560
tattttcaca taaactagac gccttgcgtt cttcttcgtt gatattcccttcttcat 1620
ttttctctc ataaaaattt acatagttat ttcgtatcc atatatgtat ctatgtt 1680
gagtaaattt ttgtgtca taaaatataa tttttttt aatgggggtt atatgtaccgc 1740
tgcgcatagt ttctgttaa ttacaacag tgcattttt tggtagttt tggaggtgt 1800
ttgtttaat tatttaaaattt atataatcaa tgaatttggg atcgtcggtt ttgtacaata 1860
ttgtggccgc atagtagcga gcttcttcgtt gttcaatttac accatttttt agcagcaccc 1920
gattaaacata actttccaaa atgttgcgtt aaccgttaaa caaaacagt tcacccctt 1980
tttctataact attgtctcg agcagttttt tttttttt aataacagcc attgtatga 2040
gacgcacaaa ctaatatcac aaactggaaa tgcattcaat tataatgtt ctgatatctc 2100
cccgatgc ctgttattgtt ctcccaatc ctcccccttgcgttcccttcc 2160
ccccagaata gaatgacacc tactcagaca atgcgttca atttcttcat ttatttaga 2220
aaggacagtg ggagtggcac ctccaggtt caaggaaggc acggggggagg ggcaacaac 2280
agatggctgg caactagaag gcacagtca ggcgtatcg cggactctag tctagactat 2340
tatttacccg gagacaggga gaggcttctc tgcgtttagt ggttgcac agcctcatgc 2400
atcacggac atgagaagaa gttccctgc tgccacctgc ttttgcac ggtgaggctt 2460
ctgttagagga agaaggagcc gtcggagttc agcacggag ggttgcgttgcgttgcgtt 2520
tccggctgc cattgtctc ccactccacg gcgatgtcgc tggatagaa gcttttgc 2580
aggcagggtca ggctgaccc ttttttttgcgtt agtcatccc gggatgggggg cagggtgtac 2640
acctgtgtt ctccgggtgtt ccctttttgtt ttggatgtt ttttctcgat gggggctggg 2700
agggcttgg tggagacctt gcaactgttccat ttttttttgcgttgcgttgcgtt 2760
acgggtggaa cgtgttccac acgggtacgtt ctgttgcactt gtccttcccg cggcttgc 2820
ttggcattat gcaccccttccac gccgttccacg taccagttga acttgcaccc agggcttcg 2880
tggctcacgt ccaccaccac gcatgttacc tcaagggttcc gggagatcat ggggtgtcc 2940
ttgggttttggggggaaagag ggttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 3000
ggtggggcatg ttttttttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 3060
ttgttgggttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 3120
acgggtccacca cgtgttccac gggatgttgcgttgcgttgcgttgcgttgcgttgcgtt 3180
tgcacggccgc tggtcaggcc tcccttgcgttgcgttgcgttgcgttgcgttgcgtt 3240
tccttgcacca ggcagcccg agggggaaaga ccgtatggcc gccgttgcgttgcgttgcgtt 3300
ggccgcgtacg attttaataa atatgttgcgttgcgttgcgttgcgttgcgttgcgtt 3360
tgatttttttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 3420
ccggatcttc aatatgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 3480
atcttttttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 3540
gatatcatgg agataattaa aatgtatgcgttgcgttgcgttgcgttgcgttgcgtt 3600
ttcgtaacag ttttttttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 3660
ccatcgccgc tggtcaggcc tccatgggttgcgttgcgttgcgttgcgttgcgttgcgtt 3720
taggccttttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 3780
ataacacccttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 3840

caacaaggcc acactggtgt gtctcataag tgaacctac cggggagccg tgacagtggc 3900
 ctggaaggca gatagcagcc cctgtcaaggc gggagttggag accaccacac cctccaaaca 3960
 aagcaacaac aagtacgcgg ccagcagcta cctgagctg acgcctgagc agtggaaagtc 4020
 ccacaaaagc tacagctgcc aggtcacgca tgaagggagc accgtggaga agacagtggc 4080
 ccctacagaa tgttcatagt aaaagcttgcg tggatggaa aagaaaag agttctacag 4140
 gggaaacttgcg acccgcttca tggaaagacag cttcccccatt gttacgacc aagaagtgtat 4200
 ggtatgtttt cttttgtca acatgcgtcc cactagaccc aaccgttgcg taaaatttcct 4260
 ggcccaacac gctctgcgtt gggaccccgta ctatgtaccc tgcgttgcg ttaggtatgt 4320
 cgagccttca tgggtggca gcaacaacga gtaccgcgtt acgcctggctt agaagggggg 4380
 cggctgcggccataatgaacc ttcaactctgat gacaccaac tcggtcgaac agtcatcg 4440
 tcgtgtcatc tgggagaact tctacaagcc catcgatccatc atcggtaccg actctgtca 4500
 agaggagggaa atttccttgc aagttccctt ggttcaaa gtaaaggagt ttgcaccaga 4560
 cgcaccccttgc ttcaactggcc tggcgttattaa aacacgata catttttattt agtacattt 4620
 ttaagcgcttca gattctgtgc gtttgcatttacagacaaat tggatgtacgt attttataaa 4680
 ttcatatataat ttataatctt taggggttgc tggatgtacgt aaaatcaaat gattttcagc 4740
 gtctttatcatcgttataat attttaaaatcgttataat ctcataatagat ttgtaaaataat ggtttcgatt 4800
 agtttcaaaac aagggttgcgtt tttccgaacc gatggcgttgc ctatctaatg gattttcgct 4860
 caacgcacaaacaaatgttca aatcttgcgtt cagcaatcttgcgttgcgttgcgttgcgtt 4920
 tgggttttttgcgttataatggaaat gttcgacgttgc gtttcaataat tttatcgctt ttttgcgtt 4980
 ttcatcaacttgcgtttagtgcgtt acaattgtacttgcgtt gacgttacac acgtttaataa aagcttagt 5040
 ggcataatattt aacatcgccgc gtttgcgtttagtgcgtt tttatcgccgttgcgttgcgttgcgtt 5100
 cctcgctgtt agaagttgcgtt tccgaagacg attttgcgtt acgcacacga cgccttattaa 5160
 ttgtgtcggttcaacacgttcc gcgatcaat tttatcgccgttgcgttgcgttgcgttgcgtt 5220
 atttgcggcg tttttggcg gtttcaatc tttatcgccgttgcgttgcgttgcgttgcgttgcgtt 5280
 cgtagaaag cgatgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 5340
 gccgtggcg gctgtgtgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 5400
 gaggcgaggcg ggggggttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 5460
 taggcacacacatcgccgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 5520
 cccgtctgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 5580
 cgtctaaagg tgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 5640
 acatcgatgg tgggtgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 5700
 gccgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 5760
 cccgcgcagg cgcgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 5820
 gtgggtggcaat ttcaatattttttaatggaaat acaatcgatgcgttgcgttgcgttgcgttgcgtt 5880
 taatttcgatcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 5940
 tggatgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6000
 cattgtatgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6060
 gtagtgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6120
 ccatatgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6180
 accccccaaac accccgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6240
 gacaagctgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6300
 aacgcgcgagg aggaaaggccgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6360
 taatgggttttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6420
 gtttatttttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6480
 tggttcaataatatttttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6540
 ttcccttttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6600
 taaaatgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6660
 gccgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6720
 aagttctgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6780
 gcccgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6840
 ttacggatgg catgacagta agagaatttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6900
 ctgcggccaa cttacttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 6960
 acaacatggg ggttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 7020
 taccacaaacgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 7080
 tattaaactgg cgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 7140
 cggataaaatgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 7200
 ataaatctgg agccgggttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 7260
 gtaaggcccttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt 7320

gaaatagaca	gatcgctgag	ataggtgcct	caactgattaa	gcattggtaa	ctgtcagacc	7380
aagtttactc	atataactt	tagattgatt	taaaaactca	tttttaattt	aaaaggatct	7440
aggtaagat	ccttttgat	aatctcatga	ccaaaatccc	ttaacgttag	ttttcgttcc	7500
actgagcgtc	agaccccgta	gaaaagatca	aaggatctc	ttgagatctt	tttttctgc	7560
gcgtaatctg	ctgcttgc当地	acaaaaaaaaac	caccgttacc	agcgggtggtt	tttttgc当地	7620
atcaagagct	accaactctt	tttccgaagg	taactgctt	cagcagagcg	cagataccaa	7680
atactgtctt	tctagtgtag	cgtagttag	gccaccactt	caagaactct	gtagcaccgc	7740
ctacataacct	cgctctgcta	atcctgttac	cagttgttgc	tgccgttgc当地	gataagtct	7800
gtcttaccgg	gttggactca	agacgatagt	tacggataa	ggccggccgg	ttggggctgaa	7860
cgggggggttc	gtgcacacag	cccagcttgg	agcgaacgac	ctacaccgaa	ctgagatacc	7920
tacagcgta	gcattgagaa	agcggccacgc	ttcccgaaagg	gagaaaggcg	gacaggtatc	7980
cggtaaggcg	cagggtcgga	acaggagagc	gcacggggg	gttcccgagg	ggaaacgcct	8040
ggtagatcttta	tagtctgtc	gggtttcgcc	acctctgact	ttggcgtcgaa	tttttgc当地	8100
gctcgtcagg	ggggcggaggc	atatggaaaa	acggccagcaa	cgccggccccc	ttacggttcc	8160
tggccctttt	ctggcccttt	gtcacatgt	tctttccgtc	gttatccccct	gattctgtgg	8220
ataaccgtat	taccgcctt	gagtgagctg	ataccgctcg	ccgcagccga	acgaccgagc	8280
cgacggagtc	agttagcgag	gaaagcggaaag	acggccaaat	acgcaaaccgg	cctctccccc	8340
cgcgttgcc	gattcattaa	tgcaggtttaa	cctgggttata	cgaaaattaaat	acgactcaat	8400
ataqqqagac	cgccagatcg	atctgtcgaa				8429

<210> 92
<211> 120
<212> DNA
<213> *Autographa californica* nucleopolyhedrovirus

<400> 92
cttttctata ctattgtctg cgagcagttg tttgttgtt aaaaataacag ccattgtata 60
qaqacqcaca aactaatatc acaaactgga aatgtctatc aatatatagt tgctgatatac 120

<210> 93
<211> 230
<212> DNA
<213> *Autographa californica* nucleopolyhedrovirus

<400> 93 tcgagcaaga aaataaaaacg ccaaacgcgt tggagtcttg tgtgctattt tacaaagatt 60
cagaaatacg catcacttac aacaaggggg actatgaaat tatgcatttg aggatgccgg 120
gaccttaat tcaacccaaac acaatataatt atagttaaat aagaattatt atcaaatcat 180
ttgtatatta attaaaaatac tatactgtaa attacatttt attacaatc 230